

We Claim:

1. An article comprising a wear resistant coating applied to a cemented carbide body wherein:

the cemented carbide body comprises WC with an average grain size of
5 0.5-4 μm , 3.5 - 9 wt-% Co and <2 wt% carbides of Ta, Ti and Nb, said body further comprising a core containing finely distributed eta phase islands with a size of 1-15 μm , the core containing 10 - 35 vol-% WC and Co binder phase, said body further comprising an intermediate zone 50-250 μm thick and is essentially free of eta phase and with nominal Co-content, said body further comprising a 0-
10 25 μm thick surface zone free of eta phase with a Co content lower than the nominal Co-content of the body;

wherein the binder phase in the intermediate zone comprises a bimodal structure of smaller original binder phase islands and larger binder phase islands.

2. The article of claim 1, wherein the core further comprises gamma
15 phase.

3. The article of claim 1, wherein the coating comprises a layer of TiC_xN_y where $x+y=1$, $x>0.3$ and $y>0.3$, with a thickness of 5-10 μm with columnar grains having a diameter of a size <2 μm .

4. The article of claim 1, wherein the coating comprises at least one
20 layer chosen from a smooth $\alpha\text{-Al}_2\text{O}_3$ and $\kappa\text{-Al}_2\text{O}_3$ the layer having a grain size of 0.5-2 μm with a thickness of 3-6 μm .

5. The article of claim 1, wherein the coating comprises

- a first, innermost, layer of $TiC_xN_yO_z$ with $x+y+z=1$ and $y > x$ and $z < 0.1$ with a thickness of $0.1\text{-}2 \mu\text{m}$, and with equiaxed grains having a size $<0.5 \mu\text{m}$;

5 10 - a second layer of TiC_xN_y where $x+y = 1$, $x > 0.3$ and $y > 0.3$, with a thickness of $5\text{-}10 \mu\text{m}$ with columnar grains having a diameter of a size $<2 \mu\text{m}$;

- a third layer of $TiC_xN_yO_z$ where $x+y+z=1$, $z < 0.5$ and $x > y$ with a thickness of $0.1\text{-}2 \mu\text{m}$ and with equiaxed or needle-like grains having a size $<0.5 \mu\text{m}$;

10 15 - a fourth layer of smooth $\alpha\text{-}Al_2O_3$ having a grain size of $0.5\text{-}2 \mu\text{m}$ with a thickness of $3\text{-}6 \mu\text{m}$; and finally

- an outermost layer of $TiC_xN_yO_z$ where $x+y+z=1$, $z < 0.05$ with a thickness of $0.5\text{-}3 \mu\text{m}$ and a grain size $<1 \mu\text{m}$.

6. The article of claim 1, wherein the article comprises a cutting tool

15 insert having at least one cutting edge and a clearance side.

7. The insert of claim 6, wherein the outermost layer is removed along the cutting edge so that the Al_2O_3 layer is exposed along the cutting edge, and the outer layer of $TiC_xN_yO_z$ is exposed on the clearance side.

8. A method of making a coated cemented carbide body, the body
20 comprising a cemented carbide of WC with an average grain size of $0.5\text{-}4 \mu\text{m}$,
3.5-9 wt-% Co and <2 wt-% carbides of Ta, Ti and Nb and with a
substoichiometric carbon content, the method comprising: sintering the body such
that an eta phase containing structure is obtained in which the eta phase is finely
distributed with a size of $1\text{-}15 \mu\text{m}$ and a content of 10 vol-% to 35 vol-%, and
25 subjecting the cemented carbide body to a gentle re-carburisation such that the eta

phase in a 50-350 μm wide intermediate zone is transformed to WC+Co without essentially changing its Co-content.